Centennial Anniversary

OF THE

First Shipment of Anthracite

COAL

From the LEHIGH REGION at LAUSANNE, Pa.,

(One Mile above Mauch Chunk,)

August 9th, 1814.

CARBON CO. HISTORICAL SOCIETY

MAUCH CHUNK, PA.

Pamphlet No. 1.

1914.

Digitized by the Internet Archive
in 2017 with funding from
This project is made possible by a grant from the Institute of Museum and Library Services as administered by the Pennsylvania Department of Education through the Office of Commonwealth Libraries

https://archive.org/details/centennialannive00carb

CARBON COUNTY

was erected out of Northampton and Monroe Counties,

by the following Act of Assembly:

Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania, in General Assembly met, and it is hereby enacted by the authority of the same, That all those parts of the counties of Northampton and Monroe lying within the following bounds, viz: Beginning at the northwest corner of Northampton County; thence, southwardly along the said line, till it intersects the northern line of Lehigh County; thence, eastwardly along the top of the Blue Mountain, to the southwest corner of Monroe County; thence, northwardly along the Monroe County line, and continue the same point of compass in a direct line through Tobyhanna township, in Monroe County, to such point as may strike the Luzerne County line; thence, westwardly along the Luzerne County line, to the place of beginning, shall be, and the same is, according to the foregoing lines, declared to be erected into a separate county, to be called CARBON: Provided, That territory

from Monroe County, shall only embrace the township of Penn Forest, and that the said township shall constitute the whole of the territory taken from Monroe County, by the provisions of this Act.

John D. Bowman, Thomas Weiss, John Fatzinger Abram Shortz and Samuel Wolf, were appointed trustees, to receive written offers of donations in real estate and money, towards defraying the expenses of the lands and public buildings, for the use of the County of Carbon.

Passed and approved March 13, 1843. *Laws of Pa. for 1843, p. 85.*

CARBON COUNTY. Extracts from records of Court, first December Term, 1843: Hon. N. B. Eldred, President, Asa Packer and Jacob Dinkey, Associates. The Grand Jurors were Chas. J. Balliet, Abraham Beer, Wm. Baker, Jonas Bauman, Andrew Cooper, John Dengler, Henry Ebert, Jacob Fitzinger, Abner Huston, Joseph Hahn, Peter Haberman, Abraham Harris, Daniel Kister, George Kissner, John Lomison, Barnard M'Clane, James M. Marsh, Abraham Mayer, N. R Penrose, Wm. Reng, Reuben Peters, John Frainer, Daniel Wentz, W. H. Wilson.

Attorneys at the first court : W. H. Butler, James R. Struthers, O. W. Wheeler, Pros. Atty., F. J. Asborn, W. Davis, Jno. D. Morris, Silas E. Buzzard, John W. Hornbeck, G. W. Tates, J. Glancy Jones, John Shouse, Christopher Loeser.

The County received its name from the important position held by this section in the production of anthracite coal.

The following account of the discovery of anthracite coal was given by Dr. Thomas C. James, of Philadelphia, who in the year 1804, in company with Anthony Morris, Esq., during an excursion to some lands on the Lehigh, their joint property, visited this section. "In the course of our pilgrimage, we

reached the summit of the Mauch Chunk mountain, the present site of the mine, or rather quarry, of anthracite coal. At that time there were only to be seen three or four small pits, which had much the appearance of the commencement of rude wells, into one of which, our guide (Philip Ginter) descended with great ease, and threw up some pieces of coal for our examination After which, whilst we lingered on the spot, contemplating the wildness of the scene, honest Philip amused us with the following narrative of the original discovery of this most valuable of minerals, now promising from its general diffusion, so much of wealth and comfort to a great portion of Pennsylvania. He said, when he first took up his residence in that district of country, he built for himself a rough cabin in the forest, and supported his family by the proceeds of his rifle, being literally a hunter of the back woods. The game he shot, including bear and deer, he carried to the nearest store and exchanged for other necessaries of life. But at the particular time to which he then alluded, he was without a supply of food for his family and after being out all day with his gun in quest of it, he was returning towards evening over the Mauch Chunk mountain, entirely unsuccessful and dispirited; a drizzling rain beginning to fall, and night approaching he bent his course homeward, considering himself one of the most forsaken of human beings. As he trod slowly over the ground, his foot stumbled against something which, by the stroke, was driven before him; observing it to be black, to distinguish which there was just light enough remaining, he took it up, and as he had often listened to the traditions of the country of the existence of coal in the vicinity, it occurred to him, that this might be a portion of that "*stone coal*" of which he had heard. He accordingly took it with him to his cabin, and the next day carried it to Col. Jacob Weiss, residing at what was

then known by the name of Fort Allen (Weissport). The Colonel who was alive to the subject, brought the specimen with him to Philadelphia and submitted it to the inspection of John Nicholson and Michael Hillegas, Esqrs., and of Charles Cist an intelligent printer, who ascertained its nature and qualities and authorized the Colonel to satisfy Ginter for his discovery, upon his pointing out the precise spot where he found the coal. This was done by acceding to Ginter's proposal, of getting through the forms of the patent office, the title of a small tract of land, which he supposed had never been taken up, comprising the mill site on which he afterwards built the mill which afforded us the lodging of the preceding night and which he afterwards was unhappily deprived of by the claim of a prior survey. Hillegas, Cist, Weiss and others immediately after (about the beginning of the year 1792) formed the Lehigh Coal Mine Company," but without a charter of incorporation, and took up 8 or 10,000 acres of unlocated land including the Mauch Chunk mountain. The mine now wrought was opened by this Company, but the difficulties of transporting coal to market were then insurmountable and their enterprise was abandoned. The mine remained in a neglected state, used only by the smiths and others of the immediate vicinity until the year 1806, when Wm. Turnbrill, Esq., caused an ark to be constructed at Lausanne, which brought to the city (Philadelphia), two or three hundred bushels. A portion was sold to the manager of the Water Works for the use of the Centre Square steam engine. Upon trial here it was deemed rather an extinguisher than an aliment of fire, was rejected as worthless and was broken up and spread on the walks of the surrounding garden, in the place of gravel.

The legislature, early aware of the importance of the navigation of the Lehigh, passed an act for its

improvement in 1771 and others in 1791, 1794, 1798, 1810, 1814 and 1816. Under one of these acts a company associated and after expending more than $20,000, in clearing out channels, relinquished their design of perfecting the navigation of the river.

In the meanwhile the coal company, desirous to render their property available, granted leases to several individuals successively ; the last for a term of ten years with the privilege of cutting timber from their lands, for floating the coal to market, was made to Messrs. Cist, Miner and Robinson upon the condition that they should send to Philadelphia 10,000 bushels of coal per annum, for the benefit of the lessees. These gentlemen loaded several arks with coal, only three of which reached the city and they abandoned the business at the close of the war in 1815. During the war, Virginia coal became very scarce, and Messrs. White and Erskine Hazard, then engaged in the manufacture of iron wire, at the falls of the Schuylkill, having learned that Mr. J. Malin had succeeded in the use of the Lehigh coal at his rolling mill, procured a cart load of it, which cost them a dollar per bushel. This quantity was entirely wasted without getting up the requisite heat. Another cart load was however obtained and a whole night was spent in endeavoring to make a fire in the furnace, when the hands shut the furnace door and departed from the mill in despair. Fortunately, one of them who had left his jacket in the mill, returning for it in about half an hour observed the door of the furnace to be red hot, and upon opening it, was surprised to find the interior at a glowing white heat. The other hands were summoned and four separate parcels of iron were heated by the same fire and rolled before renewal. The furnace was then replenished and as *letting the fire alone* had succeeded so well, that method was tried again with a like result.

Thenceforth Messrs. White and Hazard continued

the use of anthracite coal, which they procured from Schuylkill county in wagons, and occasionally in flats by freshets, and also from Lehigh in one of Messrs. Miner & Co.'s arks."

Messrs. White and Hazard sold their interests on the Schuylkill, in Philadelphia, and in 1817, began actively the development of the Lehigh region. In July, 1818, "The Lehigh Navigation Company" and "The Lehigh Coal Company" were formed, and in 1820 the two compapies were amalgamated under the title of "The Lehigh Coal and Navigation Company." In 1820, 365 tons of coal were shipped to Philadelphia and sold at $8.50 per ton delivered.

The difficulty of securing users of the Lehigh coal is well shown in the following copy of circular issued by the Lehigh Coal and Navigation Company in the attempt to increase the demand for its product:

FACTS ILLUSTRATIVE OF THE CHARACTER OF THE ANTHRCITE OR LEHIGH COAL, FOUND IN THE GREAT MINES AT MAUCH CHUNK, IN POSSESSION OF THE LEHIGH COAL AND NAVIGATION COMPANY, WITH CERTIFICATES FROM VARIOUS MANUFACTURERS, PROVING ITS DECIDED SUPERIORITY OVER EVERY OTHER KIND OF FUEL.

LEHIGH COAL.

The importance and value of this coal in various manufactures, as well as for domestic use, are now beginning to be more generally known. Its use is in consequence rapidly extending, it having been found, for most of the purposes to which it has been applied, greatly superior to all other descriptions of fuel.

For melting metals, for nailing, for rolling and slitting of iron, for malting, distilling, burning lime, baking and evaporating salts, it is entitled to a decided preference; and for various other uses in the arts it is confidently believed that, on trial, its advan-

tages will be found equally as great. Of all known species of fuel, it makes the most durable fire, creating an intense but regular and steady heat, without smoke or unpleasant smell, and producing no soot. The pipe or *chimney* therefore can never *take fire*, neither will the misery of a *smoking chimney* ever be felt where this coal is used.

For blacksmiths it is superior to the bituminous coals for all general purposes. But some alteration is necessary in the tue-iron. The gudgeons of the bellows ought to be placed 4 or 5 inches above the level of the nose of the pipe. The back of the fire place should be brought up slanting backwards, so that part of the fire may rest on it The hearth should be filled up to nearly level with the bottom of the tue-iron, which should be 1⅛ to 1¼ inches diameter, and a little art, which is soon acquired, is necessary to keep the fire open.

Furnaces for burning this coal should be so constructed as to *free themselves from ashes*. For this purpose the bars of the grate should be made smaller at the bottom than at the top where the coal rests, and should be placed not less than seven-eights of an inch apart, giving the grate or stove a *strong draught of air*.

The following certificates, selected from a great number which might be given, will confirm the statement above made of the great value of this fuel.

Orders addressed to Joseph Gillingham, Treasurer of the Lehigh Coal and Navigation Company in Philadelphia, will receive prompt attention, and the coal shipped agreeably to the direction of the purchaser.

The following certificate was given to the *then* proprietors of the great Lehigh Coal mine, by Messrs. White and Hazard, then owners of an extensive wire factory, and rolling and slitting mill, at the falls of Schuylkill, five miles above Philadelphia—

"We have used the Lehigh coal, and in the heating of bar iron for rolling, we find it to contrast with Virginia as follows:

With Lehigh coal, three men will roll *ten cwt. of iron* for wire, and burn *five bushels* of coal per day of 12 hours.

The wages are	4 00
Five bushels of coal at 90 cents is .	4 50
	$8 50

With Virginia coal it takes *ten bushels* to heat *five cwt.* of bars, which is all the three men can do with this coal in one day.

The wages as above is four dollars per day, but rolling but *five cwt.* a day, it will take *two days* to roll *ten cwt.* making the wages for that quantity 8 00

Suppose the coal to cost only 2½ cts. per bushel, 20 bushels would be 0 50

88 50

It follows that to us Lehigh coal at *ninety cents* is equally cheap as Virginia coal at *two and a half cents* per bushel."

WHITE & HAZARD.

Whitestown, November 1814.

"We the undersigned do certify that we are now using the stone coal for heating hoops for cut nails, and find it to exceed any other coal or wood fire for this purpose.

Our practice is, in the morning when we leave the shop for breakfast, to throw a quantity of coal on the fires which will be fit for working on our return, and will last until we leave it at 9 in the evening, when we again put on a quantity which lasts until the next morning at breakfast time. We find a very great advantage in thus having the fire ready to work at an early hour in the morning,

Such a fire requires about half a bushel of coal in twelve hours. We find also that the hoops heat in half the time that they do with any other fire.

Upon the whole we think that the Lehigh coal is much the best for nailing and not attended with one-fourth the trouble of any other fire, and that the nails are, in our opinion, superior to others on account of the quickness of the heat, which does not cause the iron to scale so much.

We also can cut one-fourth more nails with this fire, than a wood fire.

GEORGE SMITH,
JOHN MORGAN,
December 12th, 1814. DANIEL COLKGLASER.

"I have used in my business for years past, occasionally, charcoal, sometimes Virginia coal, and at others Lehigh, and from use and careful examination of their relative value, I am perfectly satisfied that one bushel of Lehigh coal is equal in durability and value to nearly three of Virginia, and from ten to twelve of Charcoal; and further I find it is the only coal I can depend on for welding of gun barrels, as with it I am always sure of a true and uniform result. I have now used them twenty years, and would not be willing to be without it even if it cost me two dollars per bushel.

I own three tilt hammers, and have worked for the United States and the state of Pennsylvania for the last eight years.

It requires about a peck of the Lehigh coal per day, with a small proportion of Charcoal, for one fire; with this I manufacture 8 gun barrels, or 20 pistol barrels, or 1 quart of coal to a musket barrel."

DAVID HESS,
Smith and gun barrel maker, Northampton, Pa.
December 3rd, 1814.

The firm of Cist, Miner and Robinson began in

1813 a development in the Lehigh region, under which some coal was mined and shipped, the first shipment being that, the 100th anniversary of which we now commemorate.

The following interesting letter from Mr. Charles Miner to the chairman of the Committee appointed by the Senate of Pennsylvania to report on the coal trade of the State, gives a graphic account of the difficulties, losses, etc., of himself and associates:—

WILKES-BARRE, PA., November 17, 1833.

SAMUEL J. PACKER, ESQ.,

Dear Sir: Your favor of the 7th instant was duly received. I avail myself of the first moment of leisure to give you "some account of the discovery of the Mauch Chunk coal, and the measures devised, at an early day, to bring it to market."

A hunter first discovered the black earth that covers the coal at the old mine at Mauch Chunk, and reported the extraordinary appearance to Jacob Weiss, Esq, an intelligent gentleman, who resided at Lehighton, within ten or twelve miles of the spot. An examination was immediately made, and anthracite coal found within ten feet of the surface. The land being extremely rough and barren, had not been appropriated, but was forthwith taken out of the Land office by Mr. Weiss, and a company formed, principally of public spirited citizens of Philadelphia; the mine was partially opened, and some small parcels taken to the city. The difficulty of kindling the coal, and the facility of obtaining that from Liverpool and Virginia, prevented its introduction into use, and this, with a hundred other projects of the day, slept, was forgotten by the public, and scarcely remembered by the owners of the stock.

After twenty years' repose, the subject was

awakened by the late war. Jesse Fell, associate Judge of Luzerne County, one of the most public spirited and estimable citizens of Wyoming, after various experiments, had shown the practicability of burning anthracite coal in grates, and the article had been extensively used in Wilkes-Barre and the neighboring towns for several years previous to the commencement of hostilities, and the value of it here was known and properly appreciated. Commerce being suspended with England, and the coasting trade interrupted by British cruisers, so that neither foreign nor Virginia coal could be procured, fuel of all sorts, and especially coal for manufacturing purposes, rose in Philadelphia to very high prices. Jacob Cist, of Wilkes-Barre, my intimate and much lamented friend, had derived from his father a few shares of the Lehigh Coal Company's stock. Sitting by a glowing anthracite fire one evening in his parlor, conversation turned to the Lehigh Coal, and we resolved to make an examination of the mines at Mauch Chunk, and the Lehigh River, to satisfy ourselves whether it would be practicable to convey coal from thence by the stream to Philadelphia. Mr. Robinson, a mutual friend, active as a man of business, united with us in the enterprise. Toward the close of 1813, we visited Mauch Chunk, examined the mines, made all the inquiries suggested by prudence respecting the navigation of the Lehigh, and made up our minds to hazard the experiment if a sufficient liberal arrangement could be made with the Company. Our propositions were met with the utmost promptitude and liberality by Godfrey Haga, the President, Mr. Wampole, Secretary and the members. A lease was obtained, giving us liberty for ten years, to take what coal we pleased, and to use what lumber we could find and might need, on their tract of ten thousand acres of land, the only consideration exacted being that we should work the

mines, and every year take to the city a small quantity of coal, and the coal to remain our own. The extreme favorable terms of the lease to us, will show how the property was then estimated, how difficult a matter it was then deemed to bring the coal to market, and how great were the obstacles to bringing it into common use.

During the winter 1813-4, Mr. Robinson commenced operations by opening the mines both at Room Run and on the mountain; but other more inviting objects presenting, he disposed of his part in the concern to William Hillhouse, of New Haven, Conn. Mr. Cist then managed his own part of the business. June 2nd, 1814, Mr. Hillhouse and myself entered into partnership, the management being left principally with me.

The situation at Mauch Chunk in the midst of barren mountains, and a sparse population, rendered it necessary to obtain provisions, teams, miners. ark builders, and other workmen from a distance, I made immediate arrangements to enter in business, and on the 8th June arrived at Lausanne (fifty miles from Wilkes-Barre by the then travelled road) with my hands, and took up my very comfortable quarters with Mr. Klotz.

On Tuesday the 9th of August, I being absent and there being a fresh in the river, Mr. Cist started off my first ark, 65 feet long, 14 feet wide, with 24 tons of coal; John Rhoads, pilot; Abiel Abbott (see Note 1), Daniel Blair, Johnathan Mott, Joseph Thomas, and John Thomas, on board as assistants. The stream wild—full of rocks and the imperfect channel crooked, in less than eighty rods from the place of starting, the ark struck on a ledge, and brake a hole in her bow. The lads stripped themselves nearly naked, to stop the rush of water with their clothes, At dusk they were at Easton, fifty miles. On Wednesday morning they sailed from

Easton, Peter Hawk, pilot: Daniel Blair and Joseph Thomas, assistants. Rhoads and the other hands returning; and at night the ark arrived at Blacks Eddy. Thursday, 11th went six miles below Trenton. Here James Gedders, a new pilot, took her in charge, Hawk returning. Friday, 12th, arrived at Burlington, 13th, to ten mile point; Sunday 14th, arrived at the city at 8 A. M.; Monday unloaded and delivered the coal to Messrs. Steelwaggon and Knight, selected by Mr. Cist as our Agents.

Expenses of the passage and hands down and returning,	$28.27
Wages, including three pilots,	47.50
	$75.77
Ark (cost high from inconvenience of building),	$130.00
24 Tons of Coal, raising from mine,	24.00
Hauling 9 miles to landing, at $4.00 a ton (see Note 2),	96 00
Loading into ark,	5.00
	$330.77

So that, in the first experiment, the coal cost us about fourteen dollars a ton in the city.

I have been somewhat minute in giving you these details, because the ark was the pioneer, and led off the coal trade by the Lehigh to Philadelphia now so extensive and important. This effort of ours might be regarded as the acorn from which has sprung the mighty oak of the Lehigh Coal and Navigation Company.

But while we pushed forward our labors at the mine—hauling coal, building arks, etc.,—we had the greatest difficulty to overcome of inducing the public to use our coal when brought to their doors, much as it was needed. We published handbills in English and German, stating the mode of burning the coal, either in grates, smiths' fires, or in stoves. Numerous certificates were obtained and printed from

blacksmiths and others, who had successfully used the anthracite. Mr. Cist formed a model of a coal stove, and got a number cast. Together we went to several houses in the city, and prevailed on the masters to allow us to kindle fires of anthracite in their grates, erected to burn Liverpool coal. We attended at blacksmiths' shops, and persuaded some to alter the tue-iron, so that they might burn Lehigh coal; and we were sometimes obliged to bribe the journeymen to try the experiment fairly, so averse were they to learning the use of a new sort of fuel, so different from what they had been accustomed to. Great as were our united exertions (and Mr. Cist, if they were meritorious, deserves the chief commendation), necessity accomplished more for us than our own labors. Charcoal advanced in price, and was difficult to be got. Manufacturers were forced to try the experiment of using anthracite; and every day's experience convinced them, and those who witnessed the fires, of the great value of this coal. Josiah White, then engaged in some manufacture of iron, with characteristic enterprise and spirit, brought the article into successful use in his works, and learned, as we have understood, from purchases made of our agent, its imcomparable value.

We sent down a considerable number of arks, three out of four of which stove and sunk by the way. Heavy, however, as was the loss, it was lessened by the sale, at moderate prices, of the cargoes, as they lay along the shores, or in the bed of the Lehigh, to the smiths of Allentown, Bethlehem, and the country around, who drew them away when the water became low.

We were just learning that our arks were far too large, and the loads too heavy for the stream, and were making preparations to build coal boats to carry eight to ten tons each, that would be connected together when they arrived at Easton. Much

had been taught us by experience, but at a heavy cost, by the operations of 1814-15. Peace came, and found us in the midst of our enterprise. Philadelphia was now opened to foreign commerce, and the coasting trade resumed. Liverpool and Richmond coal came in abundantly, and the hard-kindling anthracite fell to a price far below the cost of shipment. I need hardly add, the business was abandoned, leaving several hundred tons of coal at the pit's mouth, and the most costly part of the work done to take out some thousands of tons more. Our disappointment and losses were met with the spirit of youth and enterprise. We turned our attention to other branches of industry, but on looking back on the ruins of our (not unworthy) exertions, I have not ceased to hope and believe that the Lehigh Navigation and Coal Company, when prosperity begins to reward them for their most valuable labors, would tender us a fair compensation at least for the work done, and expenditures made, which contributed directly to their advantage.

I mentioned that Josiah White had used coal sent down by us. Sagacious, ardent, and of expanded views, no mind in the city was more capable of seeing at a glance to what account the vast deposits of coal might be turned. Perfecting an artificial navigation along a rapid river, was to him a familiar enterprise. With his partners, Messrs. Hauto and Hazard, he took measures to obtain possession of those mines, and a charter for the Lehigh Navigation and Coal Company. The rest is matter of public history.

As one of the pioneers in the great work of introducing the use of authracite coal into our cities, and upon the sea-board, I cannot but look back with pride and pleasure upon the success which has followed and grown upon our humble exertions, a success infinitely beyond the utmost stretch of our imag-

inations. Judging from what has been accomplished within the last ten years on the Lehigh, on the Schuylkill, and by the Hudson and Delaware Coal Company, I do not question that, in less than ten years more, anthracite coal from the Wyoming and Lackawanna Valleys will be in extensive use throughout the Genesee County, on the Lakes, at Detroit, Kingston, York, Montreal and Quebec.

NOTE 1. My friend Mr. Abiel Abbott, who kindly volunteered his services, to see the ark through the rough water, and to whose spirit we were mainly indebted for saving her from sinking when she stove on the rocks, is now justly raised by merit to the highly responsible station of superintendent of the Lehigh Navigation and Coal Company's extensive business at Mauch Chunk.

NOTE 2. The fact may not be interesting that we were obliged to pay four dollars, and for much of the coal hauled, four dollars and fifty cents a ton, over an exceeding rough road of nine miles, where now, by railway, it is transported for twenty-five cents a ton. Such are the triumphs of human industry and art! Such is the difference between the first experimental steps in a great undertaking, and the work perfected by capital and skill.

All of which is respectfully submitted by

Dear Sir, your friend and servant

CHARLES MINER.

Respectfully submitted,

FREDERICK BERTOLETTE,
JAMES J. BEVAN,
B. S. ERWIN, M. D.,
ISAAC MONROE CHURCH,
DAVID J. PEARSALL,

Committee, Carbon County Historical Society.